11-14-2019

Minutes, College of Liberal Arts Executive Committee Meeting, Thursday, November 14, 2019

College of Liberal Arts Executive Committe

EXECUTIVE COMMITTEE MEETING
November 14, 2019
Agenda

12:30 p.m. in CSS 167
Lunch will be served

I. Approval of Minutes from 10/31/19 EC Meeting

II. Business
   a. Lecturer Recommendations
   b. FEC Bylaw Revisions
   c. Data Analytics
   d. Student Faculty Collaborative Scholarship
   e. All Faculty Committees
   f. CLA Faculty Meeting Agenda

III. Reports
   a. Curriculum Committee
   b. Faculty Affairs Committee
   c. Student Government Association

EXECUTIVE COMMITTEE MEETING
November 14, 2019
Minutes

PRESENT

Jennifer Cavenaugh, Grant Cornwell, Dan Chong, Donald Davison, Paul Reich, Dawn Roe, Scott Rubarth, Emily Russell, Rob Sanders, Susan Singer, Martina Vidovic, and Wenxian Zhang

Excused: Richard Lewin, Jennifer Queen, Anne Stone

Guests:

CALL TO ORDER

Paul Reich called the meeting to order at 12:35 PM.

APPROVAL OF MINUTES FROM 10/31/19

Rubarth made a motion to approve the minutes from the 10/31/19 EC meeting. Zhang seconded the motion. Motion passed unanimously.

BUSINESS

Faculty Lines

Paul Reich

At least one person from every department requesting an emergency position requests will be invited to attend the December 11 meeting.

Q: Are the attendees there during both the informational and deliberation part? A: They always stay because it is good for them to hear what people's concerns are.

Q: Is there space in the meeting on December 5 to talk about having guidelines on how the committee is reviewing requests? A: Yes, space will be made on the agenda for that conversation.

Lecturer Recommendations

Attachment #1

Paul Reich

Paul and Don met with Susan and Grant to discuss the tabled concerns as a committee from the last meeting. From that meeting, Paul redrafted the seven recommendations that were passed around for endorsement.

The faculty are recommending that the list goes forward so the list can be simplified by saying "The faculty recommends: 1. That lecturers should constitute no more than…".

Q: There was a conversation about requesting that Susan provide a report about lecturer salaries and how to raise them and balance with other salary priorities—did that get lost? A: The report was shared with Don and Paul and can be shared with the committee.

Q: Is it useful to incorporate some recommendation of an annual report from the Provost about the prioritization of the salary pool? A: Susan already does this report every year and thinks it would be an important practice to add it.

Q: Are we preparing a section of philosophies? A: With the diversity statement, the college did want to create a different space where there are institutional philosophies and diversity values are one of them and this would be another one.

Paul will redraft the recommendations with the revised language; Don will draft a statement of philosophy regarding lecturers constituting no more than 15% of full-time faculty.

FEC Bylaw Revisions

Donald Davison

FAC requests guidance on how best to proceed with FEC bylaw revisions suggested in the first Tenure & Promotion Review Working Group Report. At the first faculty meeting of the year, there was an clear support for Associate Professors to be on FEC and expanding the number of FEC to help elevate the pressure of those cases.

There should be more diverse voices on FEC and those diverse voices should vary by rank. Those voices should not be limited to serving on tenure cases only but should serve on the full range of cases FEC oversees.

FAC is directed to propose bylaws changes that include opportunities for Associate Professors to serve and expand membership based on the number of tenure and promotion cases.

Data Analytics Minor

Attachment #2

Donald Davison

We live in a data rich word and our students are increasingly coveting skills to help them navigate that world. The minor is organized in a way to invite as many students in from across the disciplines as possible. Once they move through the minor, they will start specializing in more advanced courses.

Q: It looks like it is possible for a student to major in Computer Science and minor in Data Analytics and that is fine? A: Students are required to take the statistics classes outside of Computer Science and an applied portion so they have to have an applied portion outside the major.

Q: Could the minor at some point be available to Holt students? A: There is no reason that it should be excluded from any student, but need to get it up in running in CLA and then maybe build out from there and see what the demand is.

A spelling correction was offered to Dan Myers last name and a suggestion was made to part 3 (learning goals) to include critique aspect.

Reich made a motion to approve the Data Analytics minor. Zhang seconded. Motion passed unanimously. It will be presented at the next faculty meeting.

Student Faculty Collaborative Scholarship

Susan Singer

Student Faculty Collaborative Scholarship program is in need of new leadership. A triumvirate model with broad disciplinary representation is suggested by Singer. EC agrees with this approach. An email will be sent out and any faculty interested can contact Singer.

CLA Faculty Meeting Agenda

Paul Reich

The November 21 Faculty Meeting agenda will include an EC report that will include the All faculty bylaw revision that will be discussed at the December 11 meeting (the first 10 minutes of the meeting will be an all college meeting to approve the bylaws and then go back to CLA meeting) and an announcement of our endorsement of foreign language competency changes, Martina is going to curriculum report, Don is going to give faculty advising report, and Nancy Niles going to give student life committee report. The business side will be data analytics minor and all faculty committees discussion, which was tabled from the last meeting.

ADJOURNMENT

Paul Reich

Meeting adjourned at 1:55 PM.

ATTACHMENT 1

Lecturer Recommendations

1. The College commits to a policy stating that lecturers should constitute no more than 15% of the full-time faculty at the institution.

2. After six consecutive years of satisfactory performance meeting departmental expectations, lecturers are eligible to apply for a 'senior lecturer' designation. This promotion comes with a permanent increase in their salary.

3. After six consecutive years of satisfactory performance the dean can offer multiyear contracts to lecturers. The recommended contract length is 3 years.

4. Establish a date by which contracts renewals are given.

5. Evaluation of lecturers should be conducted by the department chair and at least one tenured or tenure-track faculty member from the department in consultation with the Dean of the Faculty.

6. Any lecturers participating in service activities for which tenure and tenure-track faculty receive additional compensation will compensated at the same rate.

7. Recommendation #1 will be incorporated into the College's policies and statements of principle. The other recommendations will be incorporated into the Faculty Handbook.

ATTACHMENT 2

Proposed Interdisciplinary Minor in Data Analytics

Rollins College

October 5, 2019

Submitted by: Dan Meyers (Computer Science)
Tim Pett (Business)
Donald Davison (Political Science)

I. Program Overview and Need

The last decade has witnessed the explosion of the collection and reliance on data. An increasing volume and complexity of quantitative and qualitative information characterizes the data revolution. It is important for Rollins to prepare our students for this data-intensive economy. Data analytics equips individuals to examine raw data and data sets with the goal of being able to draw substantive conclusions from that information. Data analytics methodologies can include exploratory data analysis (EDA), which aims to find patterns and relationships in data, and confirmatory data analysis (CDA), which applies statistical techniques to determine whether hypotheses about a data set are true or false. Hence, data analytics offers many applications across a range of disciplines. It can help scientists and social scientists test their hypotheses and models. Or it can provide business intelligence which improves decision making in firms.

The private, non-profit, and public sectors of the economy each demand data analysts. Indeed, demand for employees who possess competency in data science and analysis is greater than the supply which colleges and universities currently provide.[1] Further, it is probable that additional aspects of society, the economy, and daily life will become increasingly dependent upon data. For example, medical research institutes now need biostatisticians. However, these data skills are not limited to simply technical or quantitative fields. In fact, these skills can complement and enhance liberal arts study across a broad range of subject matters and interests. In the humanities, the minor provides technical skills that can supplement the writing, creativity and critical analysis encouraged in humanities courses. Careers in data journalism and digital art are examples of the sort of new jobs that are emerging. Ability to manage and analyze data files helps social science students to analyze and understand societal questions and problems. The American Psychological Association recently concluded that the "psychology community would benefit from incorporating data science techniques into its work and into the foundation of psychology curricula."[2] And in the sciences and mathematics students' facility with data management competence and quantitative analytic skills can improve problem solving ability. The growing amount, types, and sources of data requires that graduates possess the skills to analyze and make sense of data. Indeed, the Association of American Colleges and Universities'

[1] Paul Fain, "Report urges data science course work for all undergraduates to close growing skills gap," *Inside Higher Education,* March 30, 2017.
[2] Jessica Conroy, "A Case for Data Science in Psychology," American Psychological Association's *Psych Learning Curve*, April 1, 2019.

Quantitative Learning Value includes the importance of developing students' ability to analyze information in an increasingly "data-dense" world.[3] The National Academy of Sciences recently concluded that "the ability to measure, understand, and react to large quantities of complex data can shape scientific discovery, social interaction, political interactions and institutions, economic practice, . . . and many other areas [of daily life]."[4]

Programs in data analytics do not negate the need for substantive knowledge or other skills. Talented data analysts must be able to predict relationships and explain results that are rooted in particular substantive contexts. Data analytics programs are necessarily cross-disciplinary. Consequently, students in the Rollins College data analytics minor will learn to manage and interpret data in order to answer substantive questions and potentially help address pressing real-world problems.[5] Lynn Pasquerella, former president of Mount Holyoke College and the current president of AAC&U, noted that programs in data science and analytics "recognize the crucial importance of cross-disciplinary thinking and the need to close the divide between knowledge and experience in preparing all students to address the unscripted challenges of the 21st century. They require integrative learning frameworks that adopt holistic, multidisciplinary approaches to addressing real-world problems."[6] In other words, data analytics complements and supports liberal education in the modern era.

No longer is it the case that data science majors and minors exclusively reside in large research institutions. An increasing number of liberal arts institutions are adopting some form of a data science or data analytics program.[7] (See Appendix 1 for a list of institutions like Rollins that have created a data analytics program in the last few years). Denison University, Union College, and Macalester College offer programs that are quite similar to the proposed minor for Rollins. The programs develop both data-related skills and critical thinking. Specifically, the data analytics minor is designed to equip students with key concepts and skills that will equip them to compete for jobs and enjoy productive lives and careers. The skills complement and supplement a range of disciplines in the College. Indeed, one of the goals of the program is to enable students to make interdisciplinary connections and realize the application of these skills to data from disciplines across the curriculum. Students will be able to thoughtfully acquire, analyze, and interpret data which is consistent with the educational mission of liberal education.

II. Rollins College Minor in Data Analytics

The data and analytical skills developed in the interdisciplinary minor in analytics can complement and enhance students' liberal arts education in many disciplines. The proposed minor in data analytics is intended as best combined with various majors across multiple

[3] AAC&U, Quantitative Literacy Value Rubric, https://www.aacu.org/value/rubrics/quantitative-literacy

[4] "Data Science for Undergraduates: Opportunities and Options," The National Academies of Science, Engineering, and Medicine, 2018.

[5] March Parry, "Data Scientists in Demand," *The Chronicle of Higher Education, March* 4, 2018.

[6] Paul Fain, "Report urges data science course work for all undergraduates to close growing skills gap," *Inside Higher Education,* March 30, 2017.

[7] Emily Tate, "Data Analytics Programs Taking Off At Colleges," *Inside Higher Education,* March 15, 2017.

disciplines. The core skills developed in the minor include: a basic understanding of programming for acquiring and manipulating data, statistical analysis used to advance understanding of the relationships in the data, and the ability to communicate to a broad range of audiences the importance of the substantive results retrieved from the data. Students who combine the data analytics minor with their major may be able to count up to three shared courses, according to College policy. (It is possible for students to pursue the minor from an unrelated major, however, they will need to satisfy the prerequisites that accompany the upper level electives.)

The minor requires six (6) courses that are divided between a set of entry-level or basic skills courses and more advanced technical skills and applications. The Level I courses, or basic skills courses, are existing classes offered in multiple disciplines that teach introductory statistics. This allows multiple pathways for students to enter the minor from a variety of disciplines. The basic skills component also includes two required core courses that introduce students to concepts in data science including data mining and visualization.

Level II classes are advanced electives from which students may choose three classes. These are applied courses that enable students to pair their data analytics training with specific disciplines and/or develop additional data science skills. Students must complete three courses in Level II. All students must take one course in Block A which is a collection of advanced statistical courses with data applications. Students must take two other courses but have the flexibility to take them from either Block A or Block B. the courses in block B provide additional data science training and modeling.

Level II also offers the opportunity for students to finish the minor through a significant applied data analysis project. This course may be satisfied in several ways. Students may fulfill the capstone requirement through an independent study. Examples might include an Honors Degree Student or a student pursuing Honors in their major conducting a senior-level research project that includes a significant data analytics component. Likewise, a student can use an applied internship that includes a significant data applications component. The internship must be taken for a grade and approved by the program director. It is also possible that a separate capstone course is offered (depending upon the number of students).

Six Course Curriculum for Interdisciplinary Data Analytics Minor

Entry/Level I Basic Skills (3 courses total)

Core Requirements/Data Management and Applications (all students in the minor must complete these two required core courses):

CMS 120 Fundamentals of Computer Science (Co-requisite: CMS 120L)
(Introduction to fundamental aspects of computer science and programming using a high-level language, focusing on problem solving, algorithms, software design

concepts, and their realizations as computer programs. Topics include: variables, methods, input and output, selection and iteration, and arrays.)

DTA 250 Fundamentals of Data Science and Analytics
(Topics covered include some combination of introduction to data, data visualization, data mining, SAS, R, Stata, ACCESS, and Airtable).

Statistics (1 course from the following list)
BUS 236 Statistics for Business (prereq: MGT 101 or INB 200)
POL 240A Quantitative Analysis
ECO 221 Statistics for Economics
SOC 215 Statistics & Data Analysis for Social Sciences
PSY 250 Statistics and Research Methods w/ lab (PSY 250L coreq)
MAT 195 Statistical Reasoning
MAT 219 Probability and Statistics

Electives/Level II Intermediate Statistics and Areas of Application (3 courses)
(Students must take at least one (1) course from Block A; two other courses may come from either Block A or B.)

Block A (minimum of 1 course)
BUS 339 Marketing Analytics (prereq: MGT 330 or INB 337)
INB 336 Advanced Business Statistics (prereq: BUS 236)
DTA 325 Data Analysis for the Social Good (formerly POL 395) (prereq: POL 240A or ECO 221 or SOC 215 or instructor permission)
ECO 381 Econometrics (prereq: ECO 202, ECO 203 and ECO 221, or instructor permission)
BIO 342 Biostatistics (prereq: BIO 121 and department consent)
PSY 255 Statistics and Research Methods 2 (Prereq: PSY 250)

Block B
CMS 375 Databases (prereq: CMS 120)
CMS 380 Simulations (prereq: CMS 120)
PHY 220 Mathematical Methods for Physical Sciences
MAT 230 Linear Algebra (prereq: MAT 111 or MAT 140)
ECO 304 Intermediate Macroeconomics (prereqs: ECO 202, ECO 203, ECO 221, or instructor permission)
An approved project-based Independent Study DTA 489 or 499 (or relevant department prefix).
An internship (DTA 397) for a letter grade and approved by the program director.

III. Learning Goals

Students completing the interdisciplinary minor in data analytics will achieve the following learning goals:

1. Be able to *collect, manage, and transform data* into usable formats for analysis.
2. Be able to *interpret* the outcomes from the analysis of data.
3. Be able to *represent* and *communicate* both orally and in written form information from the data in various formats.

The learning goals map onto the developmental nature of the minor. Specifically, the first learning goal—the ability to collect, manage, and transform data—is satisfied through the introductory classes in Level I. The other goals—the ability to interpret, represent, and communicate data analytic information—are more advanced objectives and satisfied through Level II courses.

IV. Possible Combinations of the Data Analytics Minor with other Majors

The data analytics minor can be a natural complement to many majors and minors at Rollins. This also allows students to take advantage of the College policy that permits students to satisfy up to half of the courses in their minor from a related major. The minor can also introduce students to possible graduate school programs that combine data analytics with their majors. Below are a few possible examples of how the data analytics minor can enhance majors across multiple disciplines and divisions. (Courses in **bold** may double-count with a major.)

Example 1: Data Analytics Minor with Computer Science

The data analytics minor develops students' ability to analyze and manage data. A Computer Science student can combine data science classes with applied statistics courses.

Required Entry Courses/ Level I
MAT 195 Statistical Reasoning
DTA 2xx (new course)
CMS 120 Data Management and Applications

Electives and Applications/ Level II
CMS 380
CMS 375
BIO 342 or ECO 381 or POL395

Example 2: Data Analytics Minor with Economics

The data analytics program improves students' ability to analyze large and complex data files. It also introduces students to data collection and management. Economics is a strongly empirical discipline that relies on quantitative technique to analyze information. This is especially appropriate for students who plan to continue to graduate school in economics. An economics

major can take Econometrics (ECO 381) as an elective in both the major and the analytics minor. The core courses in the minor will prepare those students to conduct research in Economics for their senior capstone project. Similar combinations are possible with other majors in the social sciences and programs in the applied social sciences.

Required Entry Courses/Level I
ECO 221 Statistics for Economics
DTA 2xx (new course)
CMS 120 Data Management (new course)

Electives and Applications/ Level II
ECO 381 Econometrics
POL 395 Data Analysis for the Social Good (prefix will likely change to DTA)
CMS 380 or CMS 375

Example 3: Business

The data analytics minor is a natural complement for business majors. Students who major in business can select Business Analytics in the data analytics minor. The skills developed in the data analytics minor are helpful for business students who wish to concentrate in marketing research after graduation.

Required Entry Courses/Level I
BUS 236 Statistics for Business
DTA 2xx (new course)
CMS 120 (new course)

Electives and Applications/Level II
BUS 339 Marketing Analytics
INB 336 Advanced Business Statistics
CMS 380 or MAT 219 or ECO 381

V. Pre-requisites

There are six required courses in the proposed minor in data analytics, however, some Level II courses require prerequisites. This feature is characteristic of many minors currently offered in the curriculum. Surveying the minors offered at Rollins shows that the required courses range from a minimum of six (6) courses to a maximum of ten courses. We believe there are two factors that are noteworthy. First, the design of the proposed analytics minor is to create multiple pathways into the program from the many different majors offered at Rollins. Hence, it is likely—but not guaranteed—that many students who combine the analytics minor with their major will not be affected. For example, all Economics majors are required to take ECO 202 (Economics in Historical Perspective), 203 (Micro/Macro Economics), and 221 (Statistics for Economics). If the economics student wishes to add the analytics minor then s/he would logically take ECO 381 Econometrics as one of their Level II courses. Both ECO 221 and ECO

381 will count towards both the Economics major and the analytics minor as well as ECO 221 is the prerequisite for Econometrics. A similar path is available for Psychology majors regarding PSY 250 and PSY 255.

Second, it is possible that a student may wish to pursue the analytics minor from a discipline that offers no Level I courses. In this situation, the student likely will need more than six courses. However, given the technical nature of a data analytics minor we believe this is both necessary and desirable because the student receives a stronger foundation in the subject area.

VI. Budget Impact

No increase in the permanent budgets of any department or Olin Library is anticipated as a result of the proposed minor in data analytics.

The interdisciplinary minor in data analytics relies on existing courses offered in the curriculum. There are several new courses that are currently being developed by participating faculty and will be offered on-load. The minor does not require new faculty lines to support the program although we welcome interested faculty to participate in the program. Nor does the minor anticipate new costs for software or computer hardware though Rollins' existing technological infrastructure must be maintained and kept current. Finally, Olin Library does not anticipate the need for a permanent increase to their budget should the faculty approve the interdisciplinary minor in data analytics (See Appendix 2).

VII. Procedure for New Courses

The proposed minor in data analytics welcomes new courses. Faculty who wish to offer a course in the minor should submit a request and description of the course to the director of the analytics minor. The director, in consultation with other faculty members teaching in the minor, will review proposed new courses for possible inclusion in the minor. All changes to the minor will then be forwarded to the Curriculum Committee for their normal review and approval process, as required in the bylaws.

Appendix 1

Similar Institutions with Data Analytics Programs

(Bold indicates institutions with programs like the proposed Rollins' Minor)

Davidson—Interdisciplinary Minor in Data Science

Furman—Post-Baccalaureate Certificate in Data Analytics

Southwestern—Data Science Minor

Hendrix—Data Analytics Minor

Centre—Data Science (Major and Minor)

Trinity University (San Antonio)—Business Analytics and Technology (Major)

Denison—Data Analytics (Major)

Smith College—Statistical and Data Sciences Program (Major and Minor)

Grinnell College—received $200,000 from Roy J. Carver grant to develop a data science curriculum

Allegheny College—Integrative Informatics (Major)

Calvin College—Data Analytics Minor

Loyola University-Marymount—Data Science (Major and Minor)

Luther College—Data Science Minor

Marist College—Data Analytics (Major and Minor)

Macalester College—Data Science (Major and Minor)

Union College—Data Analytics (Minor)

Rensselaer—Data Dexterity (general education requirement)

Drake University—Data Analytics (Major and Minor)

Appendix 2

Report on the Library Resources

For Supporting the Minor in Data Analytics

Susan Montgomery & Deborah Prosser

If the College approves a minor in Data Analytics, we foresee the following resources implications for the Olin Library:

Databases

Access to the Data Analytics literature is currently supported by a variety of databases, including:

Academic Search Premier Full-text articles from more than 4,500 scholarly journals and popular publications covering a wide range of topics, including data encryption, data security, data protection, data mining, data analysis.

Business Source Complete Provides full-text access to journals in all disciplines of business, including data processing, hosting, computer systems design services, computer manufacturing, marketing consulting services.

Columbia International Affairs Online A source of full-text working papers and policy papers from major think tanks from the US and around the world.

Inter-university Consortium for Political and Social Research The Interuniversity Consortium for Political and Social Research (ICPSR) provides access to an extensive collection of downloadable data for the social science research community.

JSTOR Access to full-text articles from leading scholarly journals in Political Science (197 titles), Population Studies (27 titles), Sociology (152 titles) in addition to numerous periodicals in Economics, Education, Marketing and Advertising.

Lynda.com A leading online learning company that helps users develop business, software, technology, and creative skills to achieve personal and professional goals. Content includes learning modules focusing on Data Visualization, Data Analysis, etc.

MEDLINE Provides indexing of journal articles in medicine and science.

ProQuest Research Library Access to full-text popular and scholarly periodical literature in statistical data, data collection, data analysis.

PUBMED A medical information database.

Roper Center iPOLL A large collection of poll data —1935 to present, all US polling firms, broad topical coverage of opinions and behavior on social issues, politics, pop culture, international affairs, and more. International and US datasets available for immediate download.

ScienceDirect College Edition A multidisciplinary database of scholarly journal articles, with strength in social sciences.

SocINDEX with Full Text This database is the world's most comprehensive sociology research database, encompassing the broad spectrum of sociological study.

Statista A data aggregation platform providing users with an intuitive tool for researching quantitative data, statistics, and related information.

Web of Science A research database that allows users to find, analyze, and share information in the sciences, social sciences, arts, and humanities.

Worldwide Political Science Abstracts Provides citations, abstracts, and indexing of international serials literature in political science and similar fields, including international relations, law, and public policy. WPSA also indexes books, book chapters, reviews, and dissertations.

Journals

Olin Library provides access to 417 e-journals on various aspects of data analysis and data reporting. Unless requested by faculty members, we propose that at this time, **we do not add any new journals to the Olin Library collection to support this new minor.** Instead we will monitor interlibrary borrowing of data analytics journals for at least one year after the minor is in place to determine whether titles need to be added.

Books

Olin Library has a strong collection of print and online books on topics such as numeric data processing, data mining, and data analysis. Because of interest in cultivating data awareness in Rollins students, the library has been adding titles at the request of interested faculty members related to the growing field of data. Since the library is no longer limiting purchases submitted by faculty, we foresee no need to designate a specific amount of our collection budget for the minor.

Conclusion

Unless the faculty need specific new journals or databases to enhance the library's resources in this subject area, we do not foresee the need for a permanent increase to Olin Library's budget specifically to support this minor. However, journal use, and interlibrary borrowing will be monitored to ensure that the library's collection is adequately supporting this portion of the curriculum.

ATTACHMENT 3

FAC Report to the Executive Committee

November 14, 2019

The FAC continued its discussion of identifying the best methods to evaluate teaching. Several members attended a webinar that focused on the best practices to evaluate teaching. sponsored by the American Sociological Association.

The chair of FAC along with the President of the Faculty met with the President and Provost to discuss the lecturer guidelines reported from FAC last year. We also discussed faculty salaries generally, and full professor salaries, in particular.

The members of the FAC began to reexamine the two versions of the endowed chair policy, as instructed by the Executive Committee.

The Committee's new business for our next meeting include examining the workload of FEC and potentially increasing its membership, ways to improve participation by tenured faculty on the standing committees, and moving the Student Affairs and Diversity Committees into the governance structure rather than remaining ad hoc committees that report to the President.

FAC is also awaiting the return of the Disruptive Student Policy with the information we requested.